2-(2-(2-(2-nonyloxy-ethoxy)-ethoxy)-ethoxy)-ethan

Other names: Tetraethylene glycol, nonyl ether
Inchi: InChI=1S/C17H36O5/c1-2-3-4-5-6-7-8-10-19-12-14-21-16-17-22-15-13-20-11-9-18/h18H
InchiKey: DMVZACIDVMMVJF-UHFFFAOYSA-N
Formula: C17H36O5
SMILES: CCCCCCCCCOCCOCCOCCOCCO
Mol. weight [g/mol]: 320.46

Physical Properties

Property code	Value	Unit	Source
gf	-464.56	kJ/mol	Joback Method
hf	-1075.32	kJ/mol	Joback Method
hfus	48.63	kJ/mol	Joback Method
hvap	79.76	kJ/mol	Joback Method
log10ws	-2.55		Crippen Method
logp	2.796		Crippen Method
mcvol	279.740	ml/mol	McGowan Method
pc	1252.15	kPa	Joback Method
rinpol	2339.00		NIST Webbook
rinpol	2339.00		NIST Webbook
tb	770.22	K	Joback Method
tc	943.67	K	Joback Method
tf	431.09	K	Joback Method
vc	1.079	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	875.54	J/mol×K	770.22	Joback Method
cpg	892.93	J/mol×K	799.13	Joback Method
cpg	909.42	J/mol×K	828.04	Joback Method
cpg	925.03	J/mol×K	856.95	Joback Method
cpg	939.74	J/mol×K	885.85	Joback Method
cpg	953.55	J/mol×K	914.76	Joback Method
cpg	966.47	J/mol×K	943.67	Joback Method

dvisc	0.0006229	Pa×s	431.09	Joback Method
dvisc	0.0002058	Pa×s	487.61	Joback Method
dvisc	0.0000856	Pa×s	544.13	Joback Method
dvisc	0.0000420	Pa×s	600.65	Joback Method
dvisc	0.0000233	Pa×s	657.18	Joback Method
dvisc	0.0000142	Pa×s	713.70	Joback Method
dvisc	0.0000093	Pa×s	770.22	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R184248&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume